1: Titiev E-5 (1948) 1951 SG4 Araucanians SG4
Mapuche-Huilliche

for money, and comparatively little corn is grown. Plowing, harrowing, and similar tasks are done with conventional Spanish-Chilean tools, and the pattern of successive farming operations is the same throughout the countryside. Oxen are the favorite draught animals, and horses are rarely used for agricultural tasks.

The ideal system of land utilization throughout this part of Chile calls for a rotation of fields, whereby each plot can be left fallow after several years of use. When agricultural activities commence in the spring, preliminary plowing takes place if the soil is moist, but if the land is dry it is broken up with the aid of a toothed harrow. Before planting, a field is subjected to two more plowings, at right angles to each other, after which it is smoothed over with an improvised sort of drag, made by affixing tree branches to a harrow (Pl. I, Fig.2). Guide lines are then cut across the field at intervals of about ten feet, and as each section is seeded, it is lightly covered with soil. It must be understood, of course, that few Araucanians and not all Chileans take the trouble, or have the resources, to follow the ideal pattern.

Every Mapuche strives to sow at least six hectares of wheat. Thereafter, the principal crops consist of barley, oats, beans, peas, and potatoes. Onions, leeks, and chili peppers are grown in garden plots, most often by women, for use as condiments. Wild strawberries and other fruits are picked where available, and apple orchards are being planted in increasing numbers. Many families augment their food supplies by raising chickens and pigs; and a few enterprising souls keep turkeys, ducks, and geese. The average householder also has a yoke of work oxen, two or three all-purpose horses, and several dogs. Except for those who are destitute, each family maintains a small flock of about two dozen sheep. Excess lambs are generally sold for cash. Sheep are sheared in the spring, and the wool is spun and woven into rugs or garments by women.

A provident farmer plans to divide his yield into three parts. One is for the use of his family, a second is put aside for seed, and the third is used for paying debts or for cash sale.[11]

[11] In good years a farm will return as much as ten units of produce for every unit of seed sown. In bad years the proportion may fall as low as three

1: Titiev E-5 (1948) 1951 SG4 Araucanians SG4
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292 301 On festive days, or when going into town in the summer months, women of all ages like to wear old-fashioned dress and ornaments. In addition to the blouse, *chamal*, belt, apron, and shawl, they put narrow bands of colored silk ribbon across the head from front to back. These strips of ribbon take the place of a kerchief and are held in position by a band of metal disks, known as a *trarilokko*, that encircles the head above the ears (Pl. IV, Fig. 2). The hair is worn at the back in two long braids, between which a single bright ribbon may be tied to form a sort of *H*. Earrings are much in favor, and against the breast is worn a large pendant called a *trapelakucha*. Both the *trarilokko* and the *trapelakucha* used to be fashioned of silver, and women who own such heirlooms wear them proudly. Recently, however, these ornaments have been made of baser metals such as nickel.

ARTS AND CRAFTS

[177] 283 286 In no regard is the transitional character of Araucanian culture more notable than in the field of native technology. Until recent times the Mapuche practiced a wide range of arts and crafts, but today the only activity of the sort that survives everywhere is the spinning of wool and weaving on hand looms.

[462] Nearly all women learn to spin and weave. In their spare time they make many things for home use and can always find a market in town for the surplus. From numerous references in the literature one gathers that Araucanian craftsmen formerly manufactured many objects of stone and wood, and that many of them were fine basketmakers, potters, and silversmiths.[30] At present, a specialist here and there continues one or another of the traditional crafts,[31] and the others purchase what they want

28 32 463

[30] A large body of literature is devoted to Araucanian arts and crafts. Many references may be found in Cooper, 1946, pp. 713–19; and in Brand, 1941*a*, pp. 29–33. Good studies of stone and wood work, basketry, and pottery are available in Joseph, 1931*a*. For weaving, see Lothrop, 1930; Joseph, 1931*b*; and Oyarzún and Latcham, 1928. Silver work is described in Fonticilla, 1946. Guevara (1929, II: 247–85) provided a general treatment of native industries.

[31] At Cautinche, for example, even the custom of weaving has almost gone out of existence. A number of women still weave at Carrarrike and

4:Latcham F-5 (1888-1891) 1909 SG4 Araucanians SG4

As Humboldt has so justly remarked, "the most difficult and the most important event in the history of human society is perhaps the change from a nomadic to an agricultural life." This change among the Araucanos was not brought about by any compulsory conditions, but seems to have been adopted gradually by the race on seeing the advantages accruing from the new mode of life, and at first only in a very desultory way.

The Spanish conquest brought with it knowledge of new cereals and plants, other domestic animals, a fuller use of metals, and a considerable change in the tribal government, owing to the necessity of continued union to repel the invader.

The introduction of spirituous liquors did not, for a considerable time, make much headway. The relations between the whites and the Indians were so strained, and the stern, hard discipline of constant warfare so maintained, that the results of this traffic were not for a long time apparent. But after the declaration of the Republican Government, when there were longer lapses of peace, it became a lucrative business, and many large fortunes were made by distilling cheap "firewater" in the frontier districts. To such a degree did this traffic attain that it is a common saying in the south that the distillers did in a few years what the Spaniards failed to accomplish in three centuries—subdued the fearless Araucano. This vice has taken such a hold of the Indian that in general it has completely changed his character and mode of life, and from being a brave, untiring, vengeful patriot, he has become a drunken, cringing, soulless vagabond, who would sell land, stock, wife, daughters, or his soul itself to indulge to his craving desire for drink.

Clothing.—Prior to the Incasic invasion of the northern tribes the Araucanos led a purely nomadic life as hunters, shifting their tribe from time to time as the exigencies of the chase demanded. Their only dress consisted of the skins of wild beasts, sometimes hung as aprons by strips of hide from the waist, or passed crosswise between the legs and brought up under a waistband. In winter they protected themselves from the cold and rain by long blankets of furs coarsely sewn together, or by guanaco skins, after the fashion of the Patagonians of the present day. In those earlier days, men and women alike wore their hair long and braided into two long plaits, fastened together at the tips by strips of hide. Now, however, this fashion is left to the women, and the men wear a mane, cut off square a little above the shoulders, and bound round above the ears with a bright-coloured worsted band or cotton handkerchief, red being the favourite colour. Formerly, in warfare, and at their principal feasts, the warriors wore the heads of wild beasts as helmets, the skins and tails hanging down their backs, and fastened under the chin by straps. They also fashioned rude shirts of the softer skins, using cactus needles of bone or thorn, and thin strips of hide or vegetable fibre. In some parts they also produced a coarse kind of fibre cloth, employing rushes, fibrous grasses, or the stringy inner bark of certain trees. This was evidently an imported custom, and was probably learnt from the Calchaqui, who inhabited the eastern slopes of the Andes north of the 32nd degree. There

4 Latcham F-5 (1888-1893) 1909 SG4 Araucanians SG4

There is reason to believe that they had learned the rudiments of spinning and weaving, probably from the same source[1] before the arrival of the Incas (*circa* A.D. 1450), and that they utilised the wool of the guanacos slain by their hunters in the manufacture of articles of dress.

The Incas introduced the llama and vicuña into the country, and from that time weaving became a recognised art among the northern tribes, although farther south the possession of a few of these animals was considered as a sign of considerable wealth. But the wearing of woollen clothing did not become generalised till the introduction of sheep during the Spanish occupation. This animal increased rapidly in the fertile plains of Southern Chile, and shortly formed one of the principal sources of riches among the Indians. To-day, cotton cloth is also extensively used.

The dress of the Araucanos, both men and women, consists of two principal garments, the *chamal* and the *iraffe* or *macuñpi*, both made of coarse native cloth, generally of a dark blue colour. The former is worn by the men in guise of breeches, and consists of a square of cloth passed between the legs with the four corners drawn up under a waistbelt. By the women it is worn draped over the left shoulder, where it is fastened with a thorn, pointed bone, or a silver pin. Passing under the right armpit, it envelops the body and hangs to the knee, kept in place by a woollen cord or waist band.

The *iraffe* of the women is a smaller square, and hangs from the neck, mantle fashion; it is generally discarded indoors. Since the introduction of cotton goods the men usually wear coarse shirts of this material; formerly this garment was made of soft skins. Over all they wear the *macuñpi* or *poncho*. A handkerchief or strip of coloured wool (*trarilonco*) is bound round the forehead, and completes the ordinary dress.

These Indians go barefoot, and seldom wear the raw hide sandals of the Chilian peasant, although some of those who live in the neighbourhood of the towns, and are brought more into contact with civilisation, occasionally wear boots and hats. The children generally run about quite nude, or at most with a small skin apron, which, however, they discard in their games.

Ornaments.—The Araucanos are not so much given to personal adornment as most savage or barbarian races, although the women show a certain love of display. The most ancient and the most universal of their trinkets are undoubtedly the collars and necklets of bright-coloured stones. They usually employ green or bluish green stones (silicate of copper oxides), such as malachite or azurite, which abound all through the country, calling them *llanca*, a name commonly adopted in Chile to express these ores. Small pieces of these stones polished and perforated were strung on cords of twisted fibres. Those tribes who dwelt near the coast used small shells and coloured pebbles for the same purpose.

The coming of the Incas gave them a knowledge of the use of metal, and both gold and silver were extensively worked for ornamental purposes. These ornaments were mostly simple in form and of rude workmanship, although some

[1] [i.e., the Calchaqui.—Analyst]

4:Latcham F-5 (1888-1893) 1909 SG4 Araucanians SG4

The huts of the chiefs and principal men are divided by bamboo screens, each wife having her separate sleeping and cooking place; but among the unmarried the same confusion prevails.

The Indian villages are never large, seldom containing more than a dozen huts, generally fewer. This dislike to congregating in numbers is probably a relic of their old hunting instinct, and dates from the time when their mode of life necessitated an extensive tract of country for the requirements of each family or clan.

The household effects are of the scantiest and rudest description. They use no tables, and their seats are either rough benches or blocks of wood; although the Indian for the most part squats cross-legged on the ground. They make a rude kind of bedstead of four forked sticks, planted in the ground. Two parallel bars are placed in the forks, and a horse or bullock hide is stretched tightly across them and fastened by strips of hide. Their beds consist of piles of sheep skins with the wool still on, or bundles of rushes covered with coarse native-made blankets. Another bundle of rushes or roll of skins forms a pillow, although this latter is frequently wanting.

The native cradle is rather ingenious. It is a kind of basket hung from the roof by cords, generally over the bed of the mother, who can thus swing it without rising.

The cooking utensils consist of coarse earthenware pots of different sizes; and the meals are eaten from roughly hollowed wooden platters with rude spoons of the same material. Their clothes, when not in use, are kept in large hide sacks, suspended from wooden hooks fastened in the uprights of the house. Each wife has her separate fire, cooks the food and attends to the wants of her own progeny.

Although the Araucanos are cleanly in their persons they are not so in their households; and, as in most inferior communities, they form a happy family, the pigs, poultry, dogs, cats, etc., all sleeping under the same roof.

Weaving.—The first material used by the Araucanos in their weaving was the fibre of certain plants and the inner bark of determined trees, especially the *nyoche* (*bromelia lindbeckii*), which to-day are only utilised for making ropes, baskets, cords, and fishing lines. Now they use the wool obtained from their numerous flocks.

To twist the wool they use a very simple spindle, shaped like a shuttle and about 10 inches long. At the lower end is fixed a perforated stone disc. The wool is taken in the left hand and wound around the left arm, the right hand being used to twirl the spindle and draw out the wool. Their looms are also very primitive and easily constructed, and being adjustable can be used for any sized cloth required. The vertical frame is about 5 feet high, with a series of holes ½ inch in diameter and about 6 inches apart, to allow the regulation of the crossbar which indicates the width of the piece to be woven. The cross-beams top and bottom are fixed to the uprights by wooden pegs, and the top one can be

4:Latcham F-5 (1888-1893) 1909 SG4 Araucanians SG4

reined or lowered as desired. Both these cross-bars are provided with rows of tiny wooden pins over which the warp is stretched. The shuttle is long and needle-shaped, and is used alternately with either hand. The weft is beaten down with the same shuttle, or sometimes by a rude wooden comb. When the cloth to be woven is all one colour, the wool is dyed before the weaving begins. When stripes or designs of other colours are to be introduced the web is stretched on the frame, and the parts not to be dyed are bound round very tightly, the binding being sometimes greased. These parts are after carefully given the colour required. The colours principally used are black, blue, vermilion, yellow, and green. The dyes are for the most part vegetable, but some mineral colours and earths are known. The dyes are extremely fast, and retain their bright tints till the garment is worn out.

Skins.—Formerly the whole dress of the Araucano was composed of skins. Now they are seldom used for this purpose, but serve as rugs, beds, saddle pads, etc. They have two ways of preserving and preparing skins, one retaining the hair, and the other converting them into a kind of leather. In the first case, the fresh skin is stretched out on the ground, and pegged down with small wooden pegs, the inner side uppermost. When it is thoroughly dry, it is worked up with the hands and softened. The instrument employed for this purpose is peculiar. It is formed of a forked stick of some hard wood, one leg of which is left longer than the other. The inner surface of the fork is shaved away to form a sharp edge which is also notched. At the joint of the fork a piece of flint, iron, or other hard substance with a rough edge, is fixed as firmly as possible. The instrument is hung to a post by its longer limb, and the skin drawn to and fro in the notch of the fork. This is continued until it is completely softened. In the case of straps and thongs, they are afterwards rubbed with grease to keep them supple and to prevent them from fraying.

To remove the hair from the skin, it is first soaked in wood ashes and water. On being taken out it is scraped with sharp stones, shells or knives, on the inner surface, until the roots are loosened, when the air is plucked out. The skin is then dried and treated in the manner described already.

The principal skins used are those of the puma, guanaco, wild cat, coypu (a kind of beaver), fox, deer, otter, and dog; also sheepskins, and the hides of horses and cattle.

Pottery.—The Araucanos have acquired considerable skill in the fabrication of this article. The Indian territory is rich in different coloured clays, those most used being red, black, slaty blue, ochreous, and white, the red and black predominating.

The pottery is generally made by the women of the family, who use no other tool than a spoon-shaped stick to smooth the surface, which they do by wetting the stick. They fashion their ware by welding with their fingers. The base is formed in a single piece, and the vessel built up by strips of clay being added and worked in. The clay is of sufficient consistency to retain any form given to it. Each layer as it is laid on is smoothed over with the spoon.

The usual forms given to the household ware are those known as pitchers, pans,

5:Cooper E-4 (no date) 1946 SG4 Araucanians SG4

p. 66; Cooper, 1917, pp. 189-99; cf. Lothrop, 1932, pl. 21, a-d, and fig. 8, with details of construction of 7-plank dalca.)

Dugouts (lanampe, wampu (L. de Valdivia, 1887, lanampe), canoes) were according to Rosales (1877-78, 1:174) usually small, with a crew of three men; the largest he had ever seen was one in Tubalo with a carrying capacity of 30 persons. Of a crew of three, one man seated at the stern steered with a paddle, the other two paddled standing. Both dugouts were early reported from the Imperial (Saavedra, 1862, p. 89) region. (Cf. illustration from Gay, in Lothrop, 1932, pl. 18, h.)

Balsas of cigar-shaped bundles of various kinds of reeds, lashed with rope made of vegetal, and of new-moon shape, pointed at both ends, were in use on the mainland around the Imperial River, Tubalo River, and elsewhere, and on the islands of Santa María and Mocha.

Other "balsas," apparently rafts proper, made of *Fucus* sp. or of "cypress" (*Libocedrus chilensis*) or "laurel" (*Laurelia aromatica*), all very light and buoyant, were also used on the Island of Santa María and on the mainland. The watercraft of inflated sealskins, of the north-central Chilean Coast, has not been reported from the *Moluche-Huilliche* region.

Sails are reported as early as the middle 17th century, by Rosales (1877-78, 1:178), with the dugout when the wind was favorable, but it is uncertain whether they were used in pre-Spanish days (Friederici, 1907, p. 76). Details on type or types of paddles or oars used with early *Moluche-Huilliche* watercraft are lacking. Lothrop (1932, p. 245, pl. 21, *f*) describes and figures a [European type?] two-piece oar with cruciform rounded shaft and flat square-ended blade, used with a Chilotan plank boat. Double-bladed paddles have been reported occasionally (Lenner, 1934).

MANUFACTURES

Basketry.—Various kinds of basketry containers were woven from plant fibers. Some of these more commonly reported are: The loqe, made of *Chusquea*, of very fine weave; the chalwa, made of vegetal (*Boquila trifoliata*), small, serving as a filter for chicha or as a sieve or colander; the lloqó (fig. 74, *left*), of *Chusquea*, of flat round platter form; the lólko (fig. 74, *right*), of *Lapageria rosea*, a large basket; the yala, of bejucos. (For techniques and types, cf. Claude Joseph, 1931, pp. 241-244.)

Cordage.—Various plant fibers, particularly from ñocha (*Gynoxis haudkeli*) or mallachu (*Cyperus rotundus*), were used in the making of rope, cord, fish nets and lines, carrying bags (pilun), and baskets (figs. 75, 76). (For details, cf. Claude Joseph, 1931, pp. 244-248.)

Spinning and weaving.—Weaving with llama wool was well developed at the time of the Contact. Sheep wool was later substi-

S:Cooper E-4 (no date) 1946 SG4 Araucanians SG4

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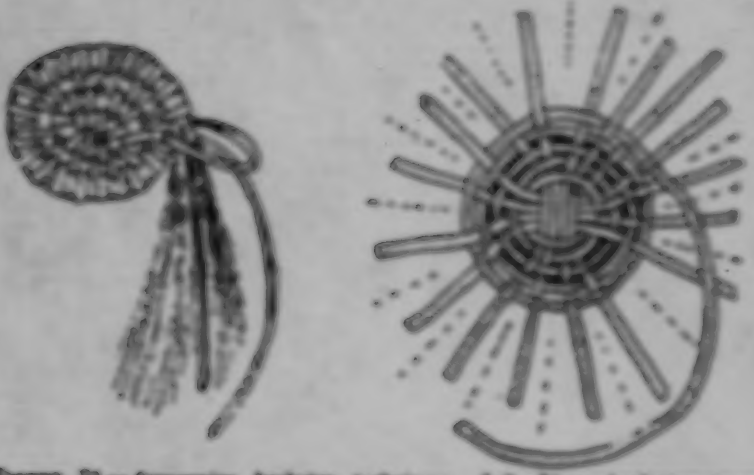

FIGURE 71.—Araucanian basketry workbasket. Left: Open basketry tray. Right: Ribbon basket. (After Claude Joseph, 1931, figs. 38, 39, 1.)

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FIGURE 72.—An Araucanian pillow carrying bag. Top: The loom. Below: The top border braid. (After Claude Joseph, 1931, fig. 44.)

3 Cooper E-4 [no date] 1946 SG4 Araucanians SG4

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twisted. Dog-hair weaving was early reported (Goicueta, 1852, p. 96) among the *Chono*, but not among the *Mapuche-Huilliche*. The Chilotans made textiles from the bark of *Aristotelia maqui*, woven in some manner (Rosales, 1877-78, I: 84). Cotton weaving was absent. Spinning and weaving were women's work.

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Wool, after being sheared, washed, dried, and combed, was spun on a wooden spindle, pointed at both ends. The wool was wound

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PLATE 76.—Pillow carrying bag. Detail of the side-wall of the bag. (After Claude Joseph, 1931, fig. 15.)

around the left arm, its end twisted with the thumb and index finger of the right hand and fastened to the spindle, and the spindle was also twirled with the thumb and index finger of the right hand.

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For weaving (fig. 77; pl. 156, top, right) a two-barred loom (witral) was used, usually vertical for larger pieces of cloth, but stretched on the ground horizontally for belts and fillets. Molina (1901, p. 122) mentions a second kind of loom, "not very unlike that used in Europe," but gives no other details.

The woven products were used mainly as clothing and adornment, but also as bedclothes and saddle-blankets. Some of the products

5:Cooper E-4 (no date) 1946 SG4 Araucanians SG4

some of the products

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were of uniform color; others were in variolored stripes, or with geometrical designs of crosses, squares, triangles, etc., or sometimes with conventionalized human figures. Flower, bird, and animal figures were apparently very modern developments. (For details on

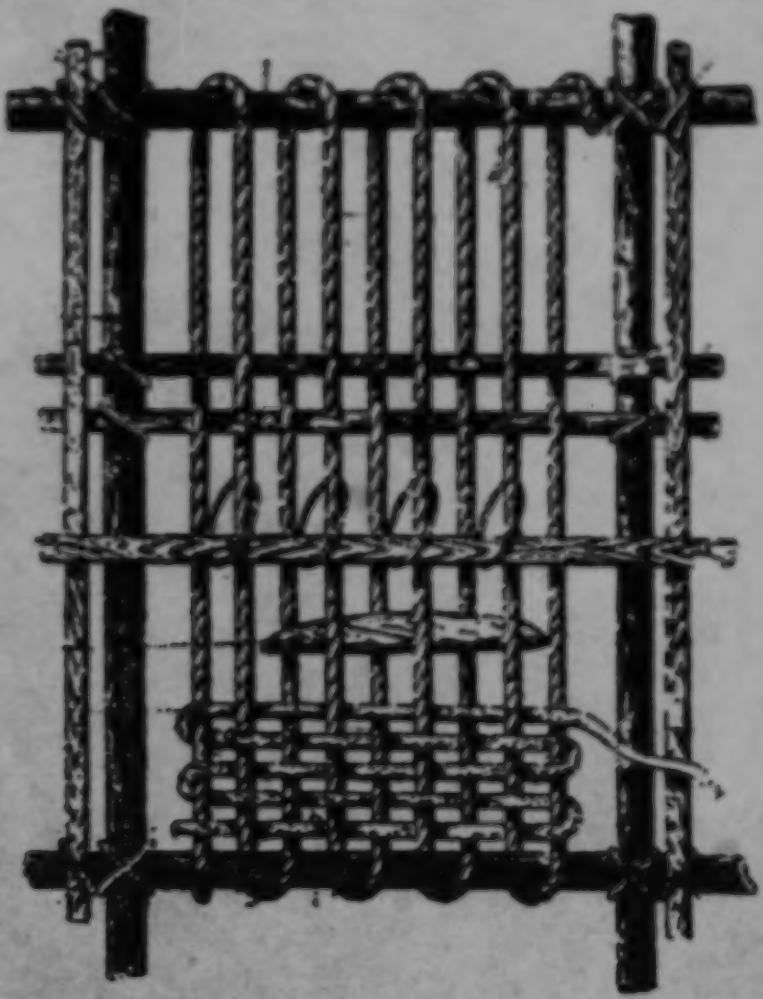

FIGURE 77.—*Mapuche* loom. (After Claude Joseph, 1928 a, p. 998.)

techniques of weaving and on woven products, cf. Claude Joseph, 1928 a; Guevara Silva, 1929, 2:262–71; Moesbach, 1936, pp. 218–30; Looser, 1927, pp. 5–9; for illustrations, Oyarzún and Latcham, 1928.)

[42]

Needles were made of thorns, wood, and bone.

5:Cooper E-4 (no date) 1946 SG4 Araucanians SG4

Dyeing.—Dyes of many colors, the majority of them derived from plants but some from earths, were used to tint the wool. Mineral substances were used to dye wool black, red, yellow, and white; plants, for black, blue, green, red, yellow, ocher, and violet. (Cf. list of plant dyes in Latcham, 1936, pp. 333–35.) Indigo was obtained by barter. Wool in natural ocher color and gray was also used.

A technique of tie-dyeing of the white warp, before the weft is woven, with ties of string and maiki bark is described in detail by Felipe Reyes (in Guevara Silva, 1913, pp. 170–77; cf. Latcham, 1936, p. 339; Lothrop, 1930, p. 328; Milán, 1934, 1:230–32); a technique of combination tie- and resist-dyeing of the white warp, with the use of a white clayey earth paste as a resist, by Claude Joseph (1929 a, pp. 1029–1031).

Skin dressing.—The skins of various wild and domesticated animals, such as the puma, guanaco, wildcat, coypu, fox, deer, otter, sheep, horse, cattle, and dogs, were used as rugs, beds, saddles, straps, etc. If dressed with the hair on, the skin was stretched out, pegged on the ground. When dried, it was softened with the hands and by drawing to and fro in the notch of a forked stick hung to a post. Straps and thongs were rubbed with grease to keep them supple. To remove the hair, the skin was soaked in wood ashes and water, then fleshed with sharp stones, shells, or knives, until the roots of the hair were loosened. Then the hair was plucked out, and the skin dressed as above (Latcham, 1936, p. 339). According to Félix José (1916, 2:96), salt was put on skins to prevent rotting, they were softened by hand, and were then anointed with grease.

Pottery.—Pottery has been made and widely used by the *Mapuche-Huilliche* since pre-Hispanic times. Their country is rich in suitable clays. Pottery making was the woman's task. Tempering was done with fine sand or pulverized rock or shell; shaping, by the coiling method (pl. 154, *left*); smoothing, with a spatula, usually spoon-shaped. The kilns were pits dug in the ground or on hillsides, or firing was done inside the dwelling. Vessels of many kinds were made (pl. 154, *right*): Cooking pots, large jars with rounded or flat bases and without handles for carrying water or holding chicha, single- and double-bellied pitchers with one or two handles, the kütru metawe (an effigy pitcher crudely resembling a steamer duck), plates, dishes, etc. Some of these types are seemingly of rather recent introduction. A common pitcher type early depicted (Maregrav, 1648, ill. p. 284) and occurring archeologically (Medina, 1882, figs. 184, 204–07) has a globular belly, rather narrow neck, and a single handle. In general, the pottery of the *Mapuche-Huilliche* and archeological specimens from their area are distinctly inferior in workmanship and decoration to the pottery of the historic and prehistoric cultures to the north and and northeast of the *Araucanian* region. Except for some geometric

1-Cooper E-4 (on Gold) 1968 SCH Annotations SCH

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[p. 734 D]

Ub Hilger E-5 (1946-1952) 1957
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[p. 92(J)]

10: Hüger E-5 (1946-1952) 1957
SG4 Araucanians SG4
Chile

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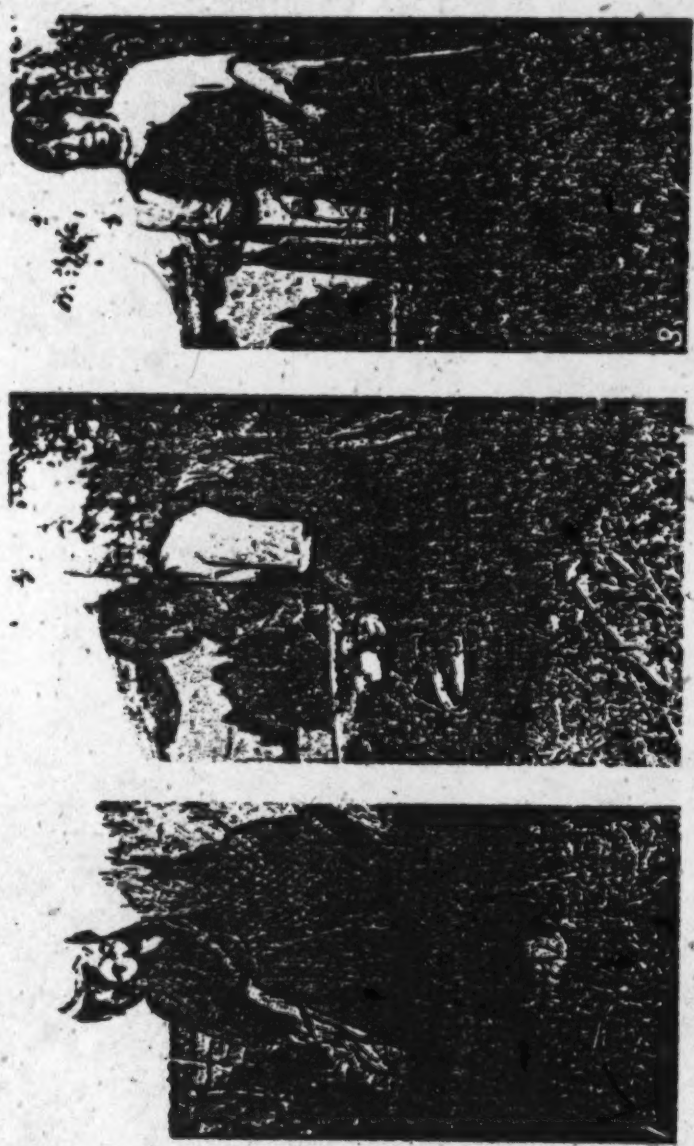
Spinning and weaving: 1, Eight-year-old Abyssinian girl spinning yarn of wool on the traditional spindle. 2, A young Colombian woman weaving a blanket.

[p. 220(F)]

10: Hilger E-5 (1946-1952) 1957
SG4 Araucanians SG4
Chile



Dyeing—(Alepún): 1, Woman returning from woods with a wilal (carrying bag) filled with bark to be used in dyeing; 2 and 3, Woman cooling off yarn after having dyed it.

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[482]

[p. 220 (G)]

40: Hilger E-5 (1946-1952) 1957
SG4 Araucanians SG4
Chile

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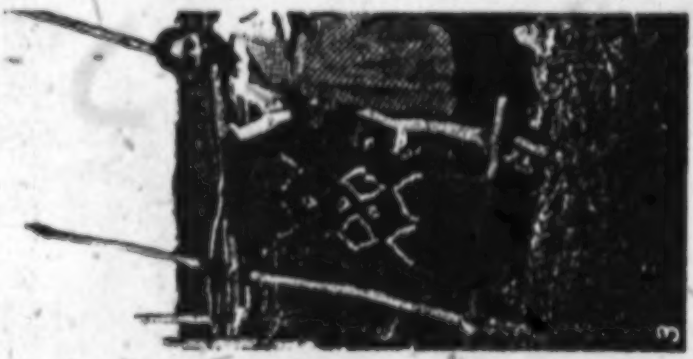

[285]

Weaving a chaapino, a saddle cover or throw for stools and low benches (Alegría): 1, Putting the warp on the loom. 2, Ready to begin to weave. 3, The completed chaapino.

[p.220 (H)]

10: Hilger E-S (1946-1952) 1957
SG4 Araucanians SG4
Chile

day, and let it settle. The liquid was then poured off into the boiling dye from which she had removed the skeins. At this point she said that there would be an offensive odor soon, because of the putrid urine, and that maybe we would like to leave the ruka. When the kettle was again boiling she returned the skeins to it and let all boil for a while, after which she squeezed a handful of yarn free of liquid and examined the color. After another 10 minutes she removed the skeins, and sent her daughter to hang them on a fence to dry. The teen-age daughter had assisted her all during the dyeing. "That is the way she learns; that is how I learned—by helping my mother dye." The same informant set commercial dyes by boiling the dyed yarn in water in which commercial alum had been dissolved. I did not see any tie-dyeing, noted by Cooper and described by his sources (1946, p. 717).

Weaving is done by women and older girls (pls. 57, *2*; 59). School girls younger than 15 years had not done any weaving. Articles woven today for use of men and boys are ponchos (makuñi) and belts (chumulwe); for women and older girls, dresses (kapam), shawls (lkülla), belts (trariwe), and headbands (trarulonko); for household use and for sale, blankets, lama, and choapino. Lama and choapino are used by Araucanians as throws for stools and benches, and as saddle covers. Chileans use them as throws and rugs.

Before setting up the loom, measurements of the article to be woven are determined and the loom adjusted to them. Measurements for clothing, as previously stated, are taken on the person who is to wear them. Generally, pieces of yarn serve as measuring tape; knots are made where measures end. "I made a poncho for him recently. I took these two measurements." The woman indicated two lengths—one from his neck to halfway between his waist line and knees, and the other from his neck to his thumb with his arm outstretched. The measurements for a blanket are taken from one already made, unless one is being woven for a specific person, in which case the length will depend on the height of that person. Measurements of lama and choapino depend on the use that is to be made of them. A woman will say, "I am going to make this choapino so wide and so long [indicating the dimensions with hand stretches]; the storekeeper wants two of that size."

Weaving is done on a rectangular adjustable frame called a clou. The frame is made by tying two horizontal beams (kalo)—oblong pieces of wood planed down on all sides—to two upright poles (witralwitral) made of two saplings trimmed of twigs and bark. Shuttles (yiwülle) are either short, straight pieces of wood or stout twigs, or more often

10: Hilger E-5 (1946-1952) 1957
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286 sections of colihüe poles. Swords (ŋərewe) are of luma wood made smooth with glass and stones, and are of varying lengths and widths. One weaver at work on a blanket had seven swords: two (29 x 3 and 18 x 1½ inches) she used in beating down the woof; five others (17 x ¾, 13 x ½, 9 x ½, 8 x ½, and 7 x ½ inches) she used toward the end of the weaving—after the heddle had been removed—to pick up alternate strands of warp. Each of the seven swords was approximately one-half inch thick, and each had the edge used in beating thinner than the opposite one. Each one was flat on one side and convex on the other, and had both ends pointed. Another implement used is a heddle (tonorwe). A second heddle (ranifielwe) is used when weaving a blanket. Both woof (dewewe) and warp (witrálün) are yarn.

Women sit while weaving and work from the bottom of the loom upward. When the area of weaving is no longer within convenient reach of the weaver, she rolls the woven part onto the lower beam and lowers the upper beam. When the article is nearly completely woven, she loosens the beams from the poles, reverses their positions on the frame, and then proceeds to weave again from the bottom upward, and ends at the part already woven.

An Alepúe woman (pl. 59) in setting up her loom leaned two 8-foot saplings against a fence near her ruka, and tied a 4-foot beam close to the top of these and another of the same length close to the bottom. She used heavy twirled yarn for tying, but could have used thongs or voqui, she noted. She then sent a child to fetch a nearby quila pole and with it measured the distance between the beams on the pole at her right. She marked the measure on the quila pole with a finger moistened with saliva. Then she measured off the same distance on the upright pole at her left, and adjusted the upper beam to equalize the distances between the beams on both poles. She was now ready to stretch the warp to weave a choapino. She tied together the ends of two balls of white yarn and fastened the combined ends to the lower beam at the right. Then, to provide for even- and odd-numbered strands, she passed one ball under the lower beam (clockwise) and over the upper beam (anticlockwise), dropped it, and did the same with the second ball (pl. 59, *1*). She continued this operation, alternating the balls, until she had sufficient warp. She now spread the strands into the positions in which she wanted them when she began to weave. To make certain that the width of the spread was what she wanted, she measured it with hand stretches. She counted the strands, and remarked, "I have here 120 double strands: 120 even ones and 120 odd ones. It will probably take two kilos of wool to

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weave this choapino." (A choapino is not unlike a hooked rug.) 286 ●
She next twirled sufficient yarn slightly to make a soft cord. With it she fastened the heddle to the odd strands by passing it around the heddle and then around a strand. Then she inserted a sword above the heddle so that all even-numbered strands were on one side and all odd-numbered ones on the other and pushed the sword upward a little. This was done to give some tautness to the strands. She used another sword to beat down the woof while weaving.

She now filled a shuttle by winding a strand of the yarn a few times around one end of it, then moving directly to the other end and winding it around that end several times, and from then on moving back and forth from end to end until she thought the shuttle still light enough in weight to be shot through the sheds without difficulty; at this point she wound the yarn around one end of the shuttle several times and severed the strand from the ball by tearing it. She filled several shuttles in the same manner, then wove a rather loose foundation by the ordinary weaving technique. This done, she worked short pieces of yarn down and back between woof and warp, and tied each one. She had cut these short pieces from skeins she had dyed in various colors. As she worked, she selected the color that filled in a design she was working out—"the design is in my mind; you will see it when I have made it." Plate 59, *3*, shows the design and the completed choapino. Choapino usually have overlapping rows of fringes on both ends, which are generally of the same color as the foundation into which the design is worked, that is, either white or brown. They are also separate pieces of yarn, but are decidedly longer than those used in the design. Proportions are usually 22 inches of a design and 11 inches of fringe at each end.

A 19-year-old Coñaripe girl wove a blanket (pl. 57, *2*) of standard size, 4 by 6 feet, for the wife of a Chilean who worked at the lumber camp in another valley. The Chilean husband had ordered it. Both warp and woof were twirled double strands of white yarn. She was weaving two 1½-inch wide stripes on each side in purple. "I dyed the yarn with purple dye the Chilean brought me," she explained. "When I have this blanket woven, I shall weave a poncho for my father. Ponchos must be woven very tight so that no rain can get through and no wind bother the person."

Lama are woven of heavy twirled double strands of wool yarn by the same technique as blankets. After they are removed from the loom they are usually combed with the thistles of a hard, dried seed pod (not identified) to give them a nap. The woof at both ends forms

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286 fringed. Belts for men and women are woven alike, except that a woman's is decidedly broader and shorter than a man's.

286 531 Designs used in weaving are usually conventional; they have no significance. Kapam and shawls have no designs. Belts and headbands often have varicolored stripes running lengthwise, or stripes of one color running crosswise near the ends. Ponchos are usually of one color, either gray, purplish gray, or silver-gray; an occasional one has woven in it a geometric design of some subdued color, usually black or brown (pl. 25, *1* and *2*). Blankets are generally of undyed white yarn with stripes of one color running lengthwise near the edges. Lama are of one color, usually gray or brown, with stripes of a bright color in the woof, close to both ends.

BASKETRY

285 Cooper (1946, p. 713) lists several kinds of basketry made of plant fibers: the chaiwe, made of voqui and used as a filter for chicha or as a sieve or colander; the llepü, a flat, round platter form made of colihüe; and the küiko, a large basket, made of copihue. He also gives the loyo and the yole as basketry containers—the loyo, of very fine weave, made of colihüe; the yole, of bejucos.

Basketry used by my informants were the wilal (a carrying bag), the küiko (a carrying and storage basket), the chaiwe (a sieve, drainage, filtering, and storage basket), and the llepü (a winnowing tray).

285 492 Wilal (pls. 12, *2*; 58, *1*) are netted from cord made of fiocha, a grass found in damp places. (See p. 101 for cord making.) Both adults and children make them. They vary in size from small ones, convenient for the use of small children, to large ones used in transporting fish to market. An in-between size is used for storage, being hung on fire racks or on pegs on ruka walls. In shape a wilal is either spherical or oblong. The opening ends either in a braid of three strands of fiocha through which a cord of fiocha is passed, or in loops of fiocha cord which are attached at intervals and through which a cord is inserted as a drawstring. A wilal may have two short handles for carrying purposes or two long adjustable straps. Straps permit carrying by hand or suspension from the shoulder or the head. Handles and straps are braided fiocha.

For the making of a wilal, a 13-year-old boy had gathered fiocha and laid it in the sun to dry. "Because we had so little sunshine and so much rain while I was making it," he explained, "it took me 8 days to make it. If my father had not helped me roll the cord, it

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283 than 100 years, when I visited, spun fine yarn. Spinning may be done while sitting down, standing, or walking.

286 The traditional loom—still in use today—is a rectangular framework of poles, usually of rauli which does not easily split. (Pl. 78, 3.) Poles are tied together, letting ends protrude, with leather ropes or thongs. Swords are usually made of wood of wild apple (manzano silvestre) or chilchil, since neither splinters easily. Women do the weaving, but girls are taught to do so as soon as they are old enough to learn. The weaver sits with her loom slanting slightly away from her, and weaving is done upward. Both woof and warp are of the same material.

Articles woven today, for both family use and sale, are ponchos, belts, shawls, bed blankets, chospino (saddle blankets), matra (throws), saddlebags for carrying purposes, and makun (rugs). Matra and chospino are placed under saddles; they and makun are used to sit upon when resting on the ground or on low benches. Standard size for throws is 40 x 50 inches (pl. 79, 2, 3); for bed blankets, 63 x 82 (pls. 79, 1, 4; 80); for ponchos, the weaver for whom it is woven (pl. 78, 4); saddlebags, 40 to 44 inches in length and 16 to 17 inches in width, with an opening for the saddle 9 by 12 to 11 by 14 inches (pl. 78, 5).

286 531 Designs are sometimes woven into certain articles. No two designs are alike, but a similarity exists in patterns by which an experienced eye can tell that a woven article is Araucanian-made. "I saw the patterns my mother wove and remembered them. From them and others I saw I worked out my own. We carried the patterns in our mind. No woman would think of copying patterns. Every woman thinks out her own and then dyes her yarn accordingly."

In general, designs had no meaning. Two, however, were spoken of as "crawling-worms" design (pl. 79, 3) and "tail-feathers-of-a-bird" pattern (pl. 79, 2). These were considered ordinary ones, and women varied them only slightly. "We make these when we are tired; they take no thinking. Every woman knows them."

DYEING

286 386 Guanaco wool was not dyed but was bleached white for borders on shawls and stripes in ponchos. A white clay known as mallo was used; today this is used in bleaching yarn of sheep's wool. (It was used to make pottery too.) Yarn stored in it until it gives a peculiar sensation to the touch (this may be two months later) will be "whiter than white, a color known as lün." Once so bleached, yarn will take no

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other dye. To bleach yarn white, the length of strands needed, "like for a diamond-shaped design in a chompion," are measured off and each wound around a leaf or small stick and stored away in mallo. An 80-year-old woman had seen her mother-in-law bury yarn in a few handfuls of mallo that she had put into a corner of a hewn-out tree trunk. She had prepared two sticks of wood, "as thick as my finger," one about so long that she had called wentru (man), and the other so long, that she called domo (woman) (4 and 2½ inches, respectively). Around each stick she wound one layer of yarn, very tight and very close together. When the yarn was removed from the mallo, it was pure white. "It always remained white. My mother-in-law wanted it for a cross design in some weaving she was about to do."

TABLE 10.—*Colors obtained from native plants (Argentina)*

Color	Plant	Remarks
Red (kelli)	Relvún (*Rollandinia hieracioides*)	
	Yerba vinagrillo (*Oxalis austrensis*)	
	Heart of ruhin (*Notholaena obliqua*)	
Rose color (kelliu enem)	Roots of pimpinela (*Acaena ovalifolia*)	
Coffee color to dark brown (ennilen kelu)	Bark of ruhin	
	Bark of nogal (*Lomatia obliqua*)	
	Boldo (*Peumus boldus*)	
Gray (kañi)	Nogal	"Nalca produces a delicate shade of gray."
	Relun (unidentified)	
	Roots of nalca (*Gunnera scabra*)	
Yellow (chuf)	Bark and roots of michai (*Berberis darwinii*)	
	Romerillo (*Lomatia ferruginea*)	
	Poqui (unidentified)	
Chestnut color, like that of guanaco wool (Tuan kai)	Bark of ruhin	
Black	Bark of nogal	"If boiled a very, very long time."

Sheep's wool is dyed after it has been made into yarn. It is boiled in water containing the substance in which the dye is found. Darker shades can be obtained by using more of the dye substance or by longer boiling with less of the substance, boiling being timed to the shade of the color desired. Informants had obtained dyes from barks and roots listed in table 10.

Formerly, no substances were known to dye blue, green, purple, or orange. In recent years, commercial aniline dyes have been used for these. Today, commercial dyes are used almost exclusively for all colors. A woman explained: "I always fear being arrested by the

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286 386 police for damaging trees if I take bark off of them or dig up roots that I would like to use in dyeing. Then, too, dyes bought in stores are not too expensive, and there is considerably less work using them."

Today, as formerly, plant dyes are set by being boiled in human urine. Alum is used in setting commercial dyes, except purple; but it will not set plant dyes. Purple is set with a sulfate.

BASKETRY

285 Baskets were made by both men and women. Those used for carrying or for sifting coarse material and for threshing wheat with the feet were made of split colihüe stalks or colihüe rind (pl. 74, *4*); those used for finer sifting were made of the vine of weliüwel (unidentified). Winnowing trays were made of vine also; only men made these. Baskets were woven; winnowing trays were coiled.

POTTERY

323 Making pottery was the work of women. "Formerly, every adult woman knew how; today, few desire to learn the art." Today cántaros, ollas, pipes, cups, plates, and pifalka are made for use at the nillatun, and only an occasional woman makes some pieces for kitchen use (pl. 73).

Pottery was made of clay mixed with sand and the sap of maqui as adhesives. It was either modeled from a single lump or made of coils.

The most commonly used clay was yellowish-red, known as raq; it was found in many places. White clay (mallo), a rare kind, was more coveted; it was found only in certain spots near creeks. Most pottery found in excavations today was made of white clay. A woman prepared white clay for pottery making by working it into powder with her hands and then pushing it through a küiko (sieve) until it was nearly as fine as dust, when she mixed it well with the juice of crushed leaves of maqui, "a very sticky juice, indeed." The least desirable clay for pottery was chapad (mud). Kolupan told of green earth that was also used formerly; it was fetched from "a far away place where we went to get it."

There were no standard sizes or shapes of pottery; nor were models followed, except certain animal patterns which seem institutional (cf. pl. 76, *1*). In general, pottery was neither glazed nor decorated. A glaze could be produced by smearing the surface with maqui juice before the pottery cooled after being fired. Sometimes clay was mixed with sand containing mica for "mica made the pottery look pretty." Polishing was done with a smooth stone before firing.

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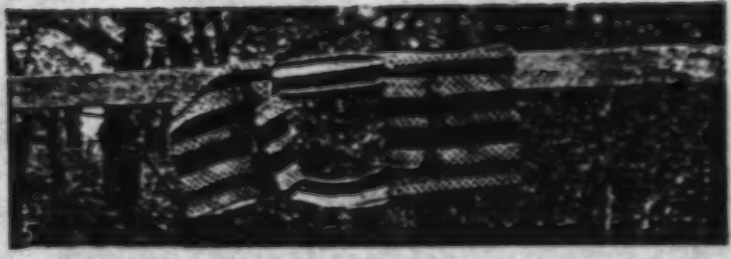

Spinning and weaving: 1, and 2, A woman spinning into yarn the wool wound about her left arm (Malleo). 3, A woman weaving a blanket (Quilaquina). 4, Kolupan wearing a poncho found in the collection of Bertha Ilg-Koessler (San Martin de los Andes). 5, A woven saddlebag with two pockets. (Courtesy Bertha Ilg-Koessler.)

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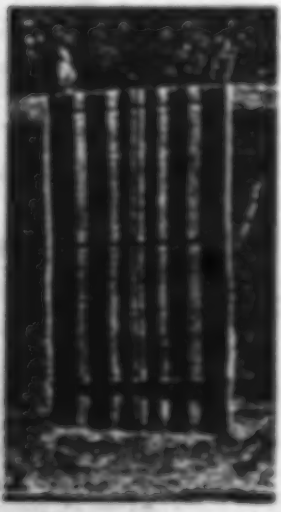

Weaving done from home-spun and home-dyed yarn: 1 and 4, Blankets. 2 and 3, Traditionally, throws; today, often used as rugs. (1, 2, and 4, courtesy Bertha Ilg-Kreussler; 3, courtesy Lisa Pfister.)

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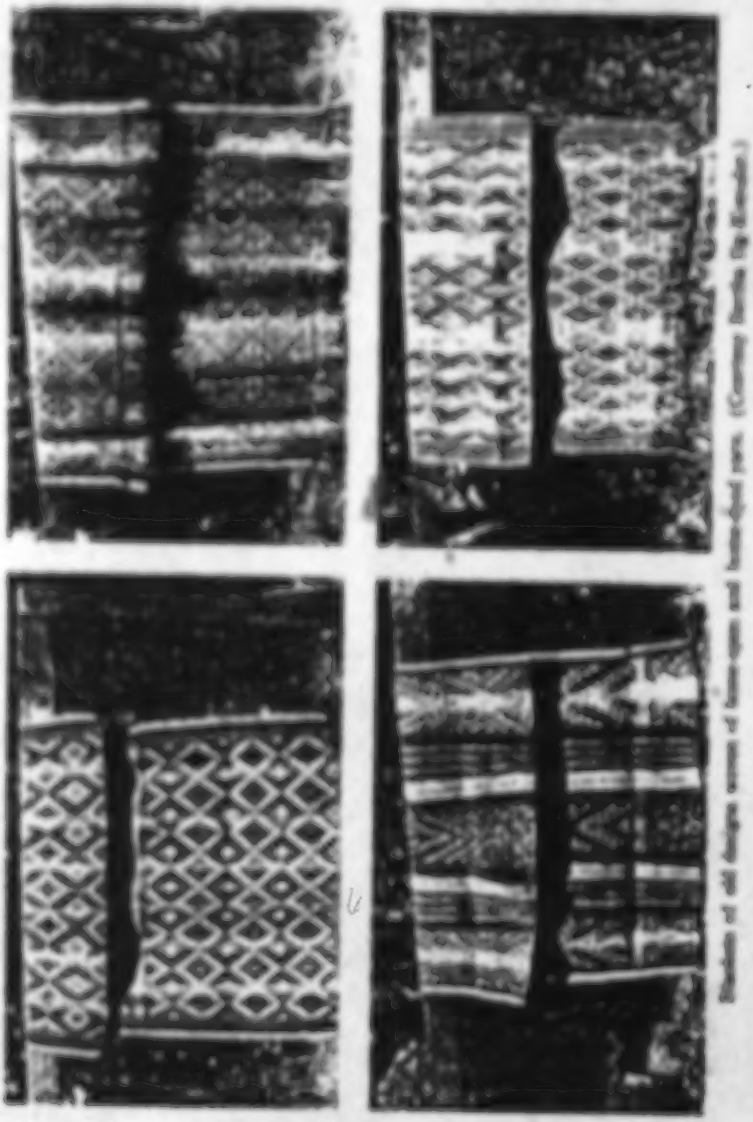

Designs of old designs woven of home-spun and home-dyed yarn. (Courtesy Museo de Etnografia)

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